

THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE AS FOLLOWS:

1. The use of an effective amount of a form of hyaluronic acid having a molecular weight less than 750,000 daltons and greater than 150,000 daltons selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof for enhancing the stimulation of hematopoietic cell production, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

2. The use of Claim 1-wherein the hematopoietic cells comprises the cell selected from the group consisting of a granulocyte, macrophage, CD34+ stem cell, monocyte, erythrocytes, polymorphonuclear cell, osteoblasts, osteoclasts, mast cells, T-cell, B-cell, and platelets.

3. A method of treating an individual suffering from anemia, the method comprising administering an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 and greater than 150,000 daltons to the individual, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

4. The use of an effective amount of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof for enhancing the stimulation of cell production/release from the bone marrow and other tissue sites into the blood, the cells being selected from at least one of the group consisting of hematopoietic cells and dendritic-type cells, the molecular weight of the form of hyaluronic acid being less than about 750,000 and greater than 150,000 daltons, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

5. A method of treating an individual for enhancing the stimulation of the production/release from the bone marrow and other tissue sites into the blood of cells selected from at least one of the group consisting of hematopoietic cells and dendritic-type cells, comprising administering an effective amount of a form of hyaluronic acid selected from the group

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consisting of hyaluronic acid and pharmaceutically acceptable salts thereof to an individual the molecular weight of the form of hyaluronic acid being less than 750,000 daltons, wherein the amount of the form of hyaluronic acid is between 10mg to 3000mg.

6. The use of an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 daltons and greater than 150,000 daltons in the manufacture of a pharmaceutical composition for administration to an individual for enhancing the stimulation of cell production/release, from the bone marrow and other tissue sites into the blood, the cells being selected from at least one of the group consisting of hematopoietic cells and dendritic-type cells, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 12mg/kg.

7. The use of an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 and greater than 150,000 daltons for stimulating and activating stromal cells, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

8. A method of treating an individual for enhancing the stimulation and activation of stromal cells, comprising administering an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof to an individual, the molecular weight of the form of hyaluronic acid being less than 750,000 daltons.

9. The use of an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid pharmaceutically acceptable salts having a molecular weight less than 750,000 daltons and greater than 150,000 daltons in the manufacture of a pharmaceutical composition for administration to an individual for enhancing the stimulation and activation of stromal cells, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 12mg/kg.

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10. The use of an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 and greater than 150,000 daltons for releasing cancer cells from bone marrow and other tissues into the blood, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

11. A method of treating an individual for releasing cancer cells from bone marrow and other tissues into the blood comprising administering an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof to an individual, the molecular weight of the form of hyaluronic acid being less than 750,000 daltons.

12. The use of an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid pharmaceutically acceptable salts having a molecular weight less than 750,000 daltons and greater than 150,000 daltons in the manufacture of a pharmaceutical composition for administration to an individual for releasing cancer cells from bone marrow and other tissues into the blood, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

13. The use of Claim 1, 2, 4, 6, 7, 9, 10 or 12 wherein the form of hyaluronic acid comprises at least about 1.5mg/kg of individual body weight to whom the form of hyaluronic acid is administered.

14. The use of Claim 1, 2, 4, 6, 7, 9, 10 or 12 wherein the form of hyaluronic acid comprises at least two dosages, a priming dosage amount and an additional dosage amount.

15. The method of Claim 3, 5, 8 or 11 wherein the form of hyaluronic acid comprises at least about 1.5mg/kg of individual body weight to whom the form of hyaluronic acid is administered.

16. The method of Claim 3, 5, 8 or 11 wherein the form of hyaluronic acid comprises at least two dosages, a priming dosage amount and an additional dosage amount.

17. The use of Claim 13 wherein the form of hyaluronic acid is at least about 12 mg/kg.
18. The method of Claim 15 wherein the form of hyaluronic acid is at least about 12 mg/kg of patient body weight.
19. The use of Claim 13 or 14 wherein the form of hyaluronic acid is sodium hyaluronate.
20. The method of Claim 15 or 16 wherein the form of hyaluronic acid is sodium hyaluronate.
21. The use of Claim 19 wherein the form of hyaluronic acid has a molecular weight of about 320,000 daltons.
22. The method of Claim 20 wherein the form of hyaluronic acid has a molecular weight of about 320,000 daltons.
23. A method of treatment for the administration to a human of an effective amount of a form of hyaluronic acid comprising administering to the human an effective amount of a form of hyaluronic acid selected from the group of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons for enhancing, stimulating and releasing hematopoietic cells and dendritic-type cells from the bone marrow and other tissues into the blood.
24. A method of treatment for the administration to a human of an effective amount of a form of hyaluronic acid comprising administering to the human an effective amount of a form of hyaluronic acid selected from the group of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons for stimulating and activating stromal cells.
25. A method of treatment for the administration to a human of an effective amount of a form of hyaluronic acid comprising administering to the human an effective amount of a form of hyaluronic acid selected from the group of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons for

releasing cancer cells from the bone marrow and other tissues into the blood.

26. The method of Claim 23, 24 or 25 wherein the form of hyaluronic acid comprising hyaluronic acid and pharmaceutically acceptable salts thereof is at least about 6 mg/kg of patient body weight to whom the form of hyaluronic acid is administered.

27. The method of Claim 23, 24 or 25 wherein the form of hyaluronic acid comprises at least two dosages, a priming dosage amount and an additional dosage amount.

28. The use of an effective amount of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons and greater than 150,000 daltons for the manufacture of pharmaceutical composition for administration to a human for stimulating and releasing hematopoietic cells and dendritic-type cells from the bone marrow and other tissues into the blood.

29. The use of an effective amount of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 and greater than 150,000 daltons for the manufacture of pharmaceutical composition for administration to a human for stimulating and activating stromal cells, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

30. The use of an effective amount of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof for the manufacture of pharmaceutical composition for administration to a human for releasing cancer cells from the bone marrow and other tissues into the blood, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 12mg/kg having a molecular weight of greater than 150,000 and less than 750,000 daltons.

31. The use of Claim 28, 29 or 30 wherein the form of hyaluronic acid is sodium hyaluronate.

32. The use of Claim 31 wherein the form of hyaluronic acid has a molecular weight of about 320,000 daltons.

33. The use of Claim 28, 29, 30, 31 or 32 wherein the form of hyaluronic acid comprising hyaluronic acid and pharmaceutically acceptable salts thereof is at least about 6 mg/kg of patient body weight to whom the form of hyaluronic acid is administered.

34. The use of Claim 28, 29, 30, 31 or 32 wherein the form of hyaluronic acid comprises at least two dosages, a priming dosage amount and an additional effective dosage amount for stimulating the cell production/release from the bone marrow.

35. The use of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 and greater than 150,000 daltons for stimulating the production/release of hematopoietic cells and dendritic-type cells from the bone marrow and other tissues into the blood, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

36. The use of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons for releasing cancer cells from the bone marrow and other tissues into the blood.

37. The use of Claim 35 or 36 wherein the form of hyaluronic acid is sodium hyaluronate.

38. The use of Claim 37 wherein the form of hyaluronic acid has a molecular weight of about 320,000 daltons.

39. The use of Claim 34, 35, 36, 37 or 38 wherein the form of hyaluronic acid comprising hyaluronic acid and pharmaceutically acceptable salts thereof is at least about 1.5mg/kg of body weight to whom the form of hyaluronic acid is administered.

40. The use of Claim 34, 35, 36, 37 or 38 wherein the form of hyaluronic acid comprises at least two dosages, a priming dosage amount and an additional dosage amount.

41. A method of treating a patient for enhancing the stimulation of the production/release from the bone marrow and other tissues of cells selected from at least one of the group consisting of hematopoietic cells and dendritic-type cells, comprising administering a plurality of amounts of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons to the patient at predetermined intervals, at least one of such dosages being in an amount suitable to stimulate the production/release of the cells from the bone marrow and other tissues into the blood.

42. The method of Claim 41 wherein the interval between dosages is a week.

43. The method of Claim 41 or 42 wherein at least one of the amounts is a priming dosage for the patient.

44. The method of Claim 41, 42 or 43 wherein the form of hyaluronic acid is sodium hyaluronate.

45. The method of Claim 44 wherein the form of hyaluronic acid has a molecular weight of about 320,000 daltons.

46. The method of Claim 41, 42, 43, 44 or 45 wherein one of the amounts is at least about 6 mg/kg of patient body weight to whom the form of hyaluronic acid is administered.

47. The method of Claim 41, 42, 43, 44, 45 or 46 wherein one of the dosages is a priming dosage in the amount of less than about 3 mg/kg of patient body weight.

48. The use of forms of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 and greater than

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150,000 daltons for mobilizing hematopoietic cells from the bone marrow and other tissues in a human into the blood of the human, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 12mg/kg.

49. A method of treating a patient for mobilizing hematopoietic cells from bone marrow and other tissues in a human into the blood of the human, the method comprising administering an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons to the patient.

50. A method of treating a patient for mobilizing stem cells from bone marrow in a human into the circulation system of the human, the method comprising administering an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof to the patient.

51. The use of forms of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 and greater than 150,000 daltons for generating stem cells for transplantation, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

52. A method of generating stem cells for transplantation comprising administering an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 and greater than 150,000 daltons to an individual and subsequently harvesting the cells to be transplanted from the peripheral blood, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

53. The use of forms of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 and greater than 150,000 daltons for treating immunosuppression caused by chemotherapy,



wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

54. A method of treating a patient for immunosuppression caused by chemotherapy comprising administering an effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons to the patient who has undergone chemotherapy.

55. The use of forms of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 and greater than 150,000 daltons for treating immunosuppression in a patient caused by AIDS, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

56. A method of a treating a patient for immunosuppression caused by AIDS comprising administering effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons to the patient who has AIDS.

57. The use of forms of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 and greater than 150,000 daltons for treating cancer, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

58. A method of treating a patient for cancer comprising administering effective amount of a form of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons to the patient followed by administration of a suitable effective amount of chemotherapeutic agent after about 4 hours.

59. The method of Claim 23 wherein the hematopoietic cells are mast cell progenitors.

60. The method of Claim 59 wherein the treatment is to modulate symptoms of allergy or asthma.

61. The use of forms of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 and greater than 150,000 daltons for increasing the level of red cells in the blood, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 12mg/kg.

62. A method of increasing the level of red cells in the blood of a patient by administering forms of hyaluronic acid selected from the group consisting of hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than about 750,000 daltons to the patient.

63. The use of Claim 51, 53, 55, 57 or 61 wherein the form of hyaluronic acid is sodium hyaluronate.

64. The method of Claim 49, 50, 52, 54, 56, 58, 59, 60 or 62 wherein the form of hyaluronic acid is sodium hyaluronate.

65. The use of Claim 63 wherein the form of hyaluronic acid has a molecular weight of about 320,000 daltons.

66. The method of Claim 64 wherein the form of hyaluronic acid has a molecular weight of about 320,000 daltons.

67. The use of Claim 65 wherein the amount of the form of hyaluronic acid is at least about 6 mg/kg of patient body weight to whom the form of hyaluronic acid is administered.

68. The use of Claim 63 wherein the dosage is a priming dosage in the amount of less than about 3mg/kg of patient body weight to whom the form of hyaluronic acid is administered.

69. The method of Claim 64 wherein the amount of the form of hyaluronic acid is at least about 6mg/kg of patient body weight to whom the form of hyaluronic acid is administered.

70. The method of claim 64 wherein the method of treatment includes the administration of a plurality of dosages of the form of hyaluronic acid including at least one priming dosage in the amount of the form of hyaluronic acid less than about 3 mg/kg of patient body weight.

71. A method to mobilize any type of susceptible cell from one tissue to another, as a single agent or before/during other clinical procedures, as taught for hematopoietic and other types of normal or malignant cells, the method comprising administering an effective amount of a form of hyaluronic acid to a patient who will benefit therefrom wherein the form of hyaluronic acid is selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 daltons.

72. The use of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 daltons and greater than 150,000 daltons for the manufacture of a pharmaceutical composition to mobilize any type of susceptible cell from one tissue to another, as a single agent or before/during clinical procedures as taught for hematopoietic and other types of normal or malignant cells, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

73. The use of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 and greater than 150,000 daltons to mobilize any type of susceptible cell from one tissue to another, as a single agent or before/during clinical procedures as taught for hematopoietic and other types of normal or malignant cells, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

74. A method to mobilize hematopoietic cells before and during harvesting of tissue to be used for organ transplantations by the infusion of effective amounts of hyaluronic acid to a patient wherein the form of

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hyaluronic acid is selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 daltons.

75. A method of using ex-vivo hyaluronic acid perfusion to mobilize hematopoietic and dendritic-type cells out of an ex-vivo organ that has already been harvested from the donor by the infusion of an effective amount of hyaluronic acid to a patient wherein the form of hyaluronic acid is selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 daltons.

76. The use of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 and greater than 150,000 daltons for the manufacture of a pharmaceutical composition to mobilize hematopoietic cells before and during harvesting of tissue to be used for organ transplantations, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

77. The use of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 daltons and greater than 150,000 daltons to mobilize hematopoietic cells before and during harvesting of tissue to be used for organ transplantations, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

78. The use of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 and greater than 150,000 daltons for the manufacture of a pharmaceutical composition to mobilize hematopoietic and dendritic-type cells out of an ex-vivo organ that has already been harvested from the donor, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

79. The use of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 and greater than 150,000 daltons to mobilize hematopoietic and dendritic-type cells out of an ex-vivo organ that has

already been harvested from the donor, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 12mg/kg.

80. A method using hyaluronic acid infusion to treat host individuals about to receive an organ transplant prior to and during the transplantation procedure by the infusion of an effective amount of hyaluronic acid to a patient wherein the form of hyaluronic acid is selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 daltons.

81. The use of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 and greater than 150,000 daltons for the manufacture of a pharmaceutical composition to treat host individuals about to receive an organ transplant prior to and during the transplantation procedure, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

82. The use of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 and greater than 150,000 daltons to treat host individuals about to receive an organ transplant prior to and during the transplantation procedure, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

83. A method using hyaluronic acid infusion to mobilize hematopoietic cells and dendritic-type cells away from/out of an organ graft that shows signs of immunologic rejection by the infusion of an effective amount of hyaluronic acid to a patient wherein the form of hyaluronic acid is selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 daltons.

84. The use of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 and greater than 150,000 daltons for the manufacture of a pharmaceutical composition to mobilize hematopoietic cells and dendritic-type cells away from/out of an organ graft that shows signs of

immunologic rejection, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 12mg/kg.

85. The use of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 and greater than 150,000 daltons to mobilize hematopoietic cells and dendritic-type cells away from/out of an organ graft that shows signs of immunologic rejection, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 12mg/kg.

86. A method to optimize immunosuppressive regimens to dampen or inhibit immune responses, for example in organ or hematopoietic cell transplantation, in autoimmune and autoimmune-like conditions, and in asthma/allergy, or in any condition involving damaging immune reactivity such method comprises administration to a patient of an effective amount of hyaluronic acid to optimize the immunosuppressive regimens used in patient to dampen or inhibit immune responses wherein the form of hyaluronic acid is selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 daltons.

87. The use of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 and greater than 150,000 daltons for the manufacture of a pharmaceutical composition to optimize the immunosuppressive regimens used in patient to dampen or inhibit immune responses, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

88. The use of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 and greater than 150,000 daltons to optimize the immunosuppressive regimens used in patient to dampen or inhibit immune responses, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 12mg/kg.

89. A method to maximize chemotherapeutic kill of hematopoietic and dendritic-type cells by infusing HA before and during the cytoreductive

therapy administered prior to an autologous or allogeneic hematopoietic cell transplant in, for example, cancer patients such method comprises administration to a patient of an effective amount of hyaluronic acid to maximize chemotherapeutic kill of hematopoietic and dendritic-type cells in patients benefiting from same wherein the form of hyaluronic acid is selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 daltons.

90. The use of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 and greater than 150,000 daltons for the manufacture of a pharmaceutical composition to maximize chemotherapeutic kill of hematopoietic and dendritic-type cells in patients benefiting from same, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

91. The use of a form of hyaluronic acid selected from hyaluronic acid and pharmaceutically acceptable salts thereof having a molecular weight less than 750,000 and greater than 150,000 daltons to maximize chemotherapeutic kill of hematopoietic and dendritic-type cells in patients benefiting from same, wherein the amount of the form of hyaluronic acid is between 1.5mg/kg to 3000mg/70kg person.

92. The method of Claim 71, 74, 75, 80, 83, 85 or 89 wherein the form of hyaluronic acid is sodium hyaluronate.

93. The use of Claim 72, 73, 75, 77, 78, 79, 81, 82, 83, 85, 87, 88, 90 or 91 wherein the form of hyaluronic acid is sodium hyaluronate.

94. The use of Claim 93 wherein the form of hyaluronic acid has a molecular weight of about 320,000 daltons.

95. The method of Claim 92 wherein the form of hyaluronic acid has a molecular weight of about 320,000 daltons.